

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-27 (Canceled).

Claim 28 (Currently Amended): An ~~electrically controllable~~ electroluminescent device ~~comprising variable optical and/or energy properties or an electroluminescent device,~~ comprising at least one carrier substrate (1, 1') carrying an electroactive multilayer stack (3) that is placed between a lower electrode and an upper electrode, ~~an electrode called the “lower” electrode and an electrode called the “upper” electrode~~, each electrode comprising at least one electrically conducting layer (2, 2') in electrical connection with at least one current bus, wherein at least one of the current buses is in electrical connection with at least one current lead comprising either conducting wires (4) or a network of wires running over or within the layer (2, 2') forming the electrode suitable for distributing, over the surface of at least one of the conducting layers (2, 2'), electrical energy so as to convert the electrical energy into light uniformly within the electroactive multilayer stack (3).

Claim 29 (Currently Amended): The device as claimed in claim 28, wherein the conducting wires (4) are metal wires, ~~for example made of tungsten (or copper)~~, optionally covered with a surface coating, with a diameter of between 10 and 100 μm ~~and preferably between 20 and 50 μm~~ , which are straight or corrugated, and deposited on a sheet of thermoplastic (5).

Claim 30 (Currently Amended): The device as claimed in claim 28, wherein the ~~lower~~ electrode comprises an electrically conducting layer (2) covering a region of

the carrier substrate, ~~especially one that is essentially rectangular~~, the lower electrode (2) being based on a doped metal oxide, ~~especially tin-doped indium oxide called ITO or fluorine-doped tin oxide F:SnO₂, or aluminum-doped zinc oxide Al:ZnO for example~~, optionally deposited on a prelayer of the silicon oxide, oxycarbide or oxynitride type, having an optical function and/or an alkali metal barrier function when the substrate is made of glass.

Claim 31 (Currently Amended): The device as claimed in claim 28, wherein the conducting layer (2) forming the ~~[[“]]lower[[”]]~~ electrode may be a bilayer formed from an SiOC first layer of between 10 and 150 nm thickness, ~~especially 20 to 70 nm and preferably 50 nm thickness~~, surmounted by an F:SnO₂ second layer of between 100 and 1000 nm thickness, ~~especially 200 to 600 nm and preferably 400 nm thickness~~.

Claim 32 (Previously Presented): The device as claimed in claim 31, wherein the device comprises a bilayer formed from a first layer based on SiO₂ doped with a little metal of the Al or B type, about 20 nm in thickness, surmounted by an ITO second layer of about 100 to 300 nm thickness.

Claim 33 (Previously Presented): The device as claimed in claim 31, wherein the device comprises a layer formed from ITO about 100 to 300 nm in thickness.

Claim 34 (Currently Amended): The device as claimed in claim 28, wherein the ~~active system (3) comprises a multilayer stack comprising:~~ comprises at least one HIL layer (3a) based on an unsaturated, ~~especially polyunsaturated~~, heterocyclic compound ~~such as a copper or zinc phthalocyanine or a PEDT/PSS compound~~ 5 nm in thickness; an HTL layer (3b), 50 nm in thickness, of N,N'-diphenyl-N,N'-bis(3-methylphenyl)-1,1'-biphenyl

4,4'-diamine (TPD) or N,N'-bis-(1-naphthyl)-N,N'-diphenyl-1,1'-biphenyl-4,4'-diamine ((α -NPD)); a layer (3c), 100 nm in thickness, of evaporated molecules of the complex AlQ_3 (aluminum tris(8-hydroxyquinoline)) optionally doped with a few percent of rubrene, DCM or quinacridone; and an ETL layer (3d), 50 nm in thickness, of 2-(4'-biphenyl)-5-(4''-tert-butylphenyl)-1,3,4-oxadiazole (t-Bu- PBD) or 3-(4'-biphenyl)-4-phenyl-5-(4''-tert-butylphenyl)-1,2,4-triazole (TAZ).

Claim 35 (Currently Amended): The device as claimed in claim 28, wherein the ~~active system (3) comprises a multilayer stack comprising:~~ comprises at least one HIL layer (3a) made of PEDT/PSS 50 nm in thickness; and a layer (3b) of polymers based on PPV, PPP, DO-PPP, MEH-PPV or CN-PPV, 100 nm in thickness.

Claim 36 (Currently Amended): The device as claimed in claim 28, wherein the ~~active system (3) comprises a multilayer stack comprising:~~ comprises at least one layer (3a) based on an active material 500 nm in thickness, ~~such as for example sulfides like Mn:ZnS, Ce:SrS, or Mn:Zn₂SiO₄, Mn: Zn₂GeO₂ or Mn: ZnGa₂O₄~~, this layer (3a) being joined on either side to insulating layers (3e, 3f) made of a dielectric material (~~Si₃N₄, Al₂O₃/TiO₂ or BaTiO₃~~) with a thickness of 150 nm.

Claim 37 (Previously Presented): The device as claimed in claim 28 wherein the electrically conducting layer (2') forming the upper electrode is based on a metal or metal alloy of aluminum.

Claim 38 (Currently Amended): The device as claimed in claim 28 wherein the electrically conducting layer forming the upper electrode (2¹) is based on an electropositive metal (~~Al, Mg, Ca, etc.~~) or an alloy of said metals.

Claim 39 (Currently Amended): The device as claimed in claim 28, wherein at least one of the two electrodes, ~~preferably the “upper” electrode~~, comprises an electrically conducting layer joined to a network (4) of conducting wires/conducting strips.

Claim 40 (Currently Amended): The device as claimed in claim 39, wherein the conducting network (4) comprises a plurality of essentially metallic wires placed on the surface of a sheet (5) of polymer, ~~especially of the thermoplastic type.~~

Claim 41 (Currently Amended): The device as claimed in claim 39, wherein the wires/strips (4) are placed essentially parallel to one another, ~~preferably in an orientation essentially parallel to the length or the width of the electrically conducting layer (2') of the “upper” electrode~~, the ends of said wire/strips extending beyond the substrate region covered by said electrically conducting layer on two of its opposed edges, ~~especially by at least 0.5 mm.~~

Claim 42 (Currently Amended): The device as claimed in claim 39 wherein the ends of the wires/strips (4) joined to the electrically conducting layer (2) of the [[“]] lower [[”]] electrode are electrically connected to current buses in the form of flexible strips (6a, 6b) made of insulating polymer, these being covered on one of their faces with a conductive coating.

Claim 43 (Previously Presented): The device as claimed in claim 42, wherein said current buses are in the form of conducting clips that grip the carrier substrate (1, 1').

Claim 44 (Currently Amended): The device as claimed in claim 42, wherein the set of current buses for the ~~"lower" and "upper"~~ lower and upper electrodes are brought together in the form of a strip of approximately rectangular shape, formed from an electrically insulating and flexible polymer support, with, on two opposed edges, a conductive coating on one face and, on its other two edges, a conductive coating on the face on the opposite side from the previous one, ~~preferably with a single external electrical connector.~~

Claim 45 (Currently Amended): The device as claimed in claim 28 wherein at least one of the current buses is in the form of a shim (14a, 14b, 15a, 15b), ~~especially a metal strip,~~ or in the form of one or more conducting wires, or in the form of a point lead made of conducting material.

Claim 46 (Previously Presented): The device as claimed in claim 28 wherein the electroactive stack (3) covers a carrier substrate region which is a polygon, a rectangle, a diamond, a trapezoid, a square, a circle, a semicircle, an oval or any parallelogram.

Claim 47 (Currently Amended): The device as claimed in claim 28 wherein the device ~~it makes up~~ is comprised in an electroluminescent system.

Claim 48 (Previously Presented): The device as claimed in claim 47, wherein the electroluminescent system is transparent.

Claim 49 (Currently Amended): The device as claimed in claim 47, wherein the device ~~[[it]]~~ is an electroluminescent glazing unit, ~~especially of laminated structure.~~

Claim 50 (Currently Amended): The device as claimed in claim ~~[[47]]~~ 49, wherein the electroluminescent glazing unit comprises at least one flat glass pane and/or at least one curved glass pane.

Claim 51 (Previously Presented): The device as claimed in claim 47 wherein the device also includes at least one of the following coatings: an infrared-reflecting coating, a hydrophilic coating, a hydrophobic coating, a photocatalytic coating with anti-fouling properties, an anti-reflection coating, an electromagnetic shielding coating.

Claim 52 (Previously Presented): The device as claimed in claim 47 wherein the carrier substrate (1) is rigid, semirigid or flexible.

Claim 53 (Previously Presented): A method for glazing automobiles or buildings comprising applying the device as claimed in claim 28 to an automobile or building.